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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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Patrick G. Burns, Esq.
GREER, BURNS & CRAIN, LTD.
300 South Wacker Dr., Suite 2500
Chicago, IL 60606

| EXAMINER |
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MAHMOOD, REZWANUL

| ART UNIT | PAPER NUMBER |
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2164

DATE MAILED: 09/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/646,305 | GOTO ET AL. | |
| | Examiner | Art Unit | |
| | Rezwanul Mahmood | 2164 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.


SAM RIMELL
PRIMARY EXAMINER

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is in response to the amendment filed on June 27, 2006.

Response to Amendment

2. Claims 1-10 are pending in this office action.

Response to Arguments

3. Applicant's arguments filed with respect to claims 1-10 have been fully considered but they are not deemed to be persuasive.
4. In response to the applicant's arguments on independent claims 1 and 9, the applicant argues that the prior arts do not disclose the features "a plurality of records retrieved from a database on a server (a second computer system) are sent by and manipulated by a client (a first computer system), and a log including the data manipulations and the manipulated data is sent to the server so that the server reflects the manipulations to the database, in order to minimize communication between the client and server". The examiner responds that the prior arts in fact teach the features.
5. In Column 5 lines 7-11, Toub discloses communications between a client and a server and communicating interactive data-bound controls which contain plurality of records. In Column 6 lines 64-67 Cohen discloses a log file which stores any updates due to data manipulation. It would have been obvious from the combination of Toub and

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Cohen for a log file to be generated while data received from the server side was being manipulated at the client side as admitted by the applicant (Response: Page 20, lines 3-4) and the log file to be communicated from the client side to the server side once the manipulated data information is sent back to the server side database to minimize communication between client and server..

6. In response to applicant's argument regarding DHTML being a execution type program, not a compiled code. The examiner responds that the claim language does not discuss anything about what language(s) can be used for the method or program.

7. In response to the applicant's arguments on independent claims 1, 9 and dependent claim 4, the applicant argues that "Toub does not send data manipulations about a plurality of records on the client at one time" and that "Toub does not suggest updating a plurality of records at one time". The examiner responds that the Toub reference does in fact teach the features.

8. The examiner notes that the feature of manipulating a plurality of records 'at one time' or updating a plurality of records 'at one time' is not part of the applicant's claim language. In Column 5 lines 57-67, Column 6 lines 1-9, and Figures 3-10 of Toub, it is stated that plurality of controls are sent from the server to the client at one time, and it is inherent that manipulating one control can manipulate multiple records at one time. And in column 5 lines 51-56 of Toub it is disclosed once data has been modified, such

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modification is communicated to the server.

9. In response to the applicant's arguments on independent claims 1 and 9, the applicant argues that "although the Cohen reference discloses a log file in which changes to a database are stored, it is not predicted on a remote access to the database. Therefore, Cohen does not disclose communications between a client and a server". The applicant further argues that "Cohen does not store an update log when it is unnecessary to increase access efficiency. The log file of Cohen stores a history of actual updates to the database. This is different from the logs of claims 1 and 9, which store manipulations to the database objects on the client that are not manipulations to the actual database on the server. Therefore, if the log file of Cohen were applied to the method of Toub, a history of the interactive manipulations of Toub might be stored in the log file. However, it would not have been obvious from the combination that the manipulations to the database objects on the client could be stored in a log, and that the server could update the database on the basis of the log and the manipulated database object". The examiner argues that the prior arts in fact teach the features.

10. In response to applicant's argument, to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*,

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837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

"Test of obviousness is not whether features of secondary reference may be bodily incorporated into primary reference's structure, nor whether claimed invention is expressly suggested in any one or all of references; rather, test is what combined teachings of references would have suggested to those of ordinary skill in art."

In re Keller, Terry, and Davies, 208 USPQ 871 (CCPA 1981).

"Reason, suggestion, or motivation to combine two or more prior art references in single invention may come from references themselves, from knowledge of those skilled in art that certain references or disclosures in references are known to be of interest in particular field, or from nature of problem to be solved;" *Pro-Mold and Tool Co. v. Great Lakes Plastics Inc.* U.S. Court of Appeals Federal Circuit 37 USPQ2d 1626 Decided February 7, 1996 Nos. 95-1171, -1181

"[q]uestion is whether there is something in prior art as whole to suggest desirability, and thus obviousness, of making combination." *Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick Company et al.* U.S. Court of Appeals Federal Circuit. 221 USPQ 481 Decided Mar. 21, 1984 No 83-1178.

11. In Column 5 lines 7-11, Toub discloses communications between a client and a server, and in Column 6 lines 64-67 Cohen discloses a log file which stores any updates due to data manipulation. It would have been obvious from the combination of Toub and Cohen for a log file to be generated while data received from the server side was being

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manipulated at the client side as admitted by the applicant (Response: Page 20, lines 3-4) and the log file to be communicated from the client side to the server side once the manipulated data information is sent back to the server side database. The suggestion or motivation would be to store operations/manipulations so that the operations/manipulations can be re-performed or undone to restore the contents to its pre-failure state after a failure (Cohen: Column 2, lines 23-38).

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

13. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Toub (US Patent 6,674,450) in view of Cohen (US Patent 5,903,898).

14. With respect to claim 1, Toub discloses a method for persisting data manipulations in a transaction processing system that consists of a first computer system issuing a data manipulation request to a database having a plurality of records and a second computer system accessing said database according to said data manipulation request (Toub: Column 5, lines 7-11; Column 4, lines 9-29; Figure 2), said method comprising:

a step where said first computer system designates a search condition,

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requesting said second computer system to retrieve records that satisfy said search condition from said database; a step where said second computer system retrieves all records that satisfy said search condition designated by said first computer system from said database, sending the contents thereof back to said first computer system (Toub: Column 5, lines 7-11);

a step where said first computer system executes preset data manipulations on a memory to said database object, which corresponds to contents of records retrieved by said second computer system (Toub: Column 5, lines 30-35).

However, Toub does not disclose expressly recording the contents of said data manipulations into said memory as a log by a record;

The Cohen reference, however, discloses storing information changes made to the database by data manipulation as a log file (Cohen: Column 5, lines 26-30; Column 6, lines 64-67; Column 7, lines 1-2).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art, to have added storing data manipulation records as a log file to the method of data manipulation in a transaction processing system.

The suggestion or motivation of doing so would be to store database operations so that the operations can be re-performed to restore the database to its pre-failure state after a failure (Cohen: Column 2, lines 23-28).

Therefore, it would have been obvious to combine Toub with Cohen for the benefit of a method of data manipulation with log records in a transaction processing system.

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For the remainder of claim 1, Toub in view of Cohen discloses the following:

a step where said first computer system stores the contents of said database object and said log after the data manipulations into a message, sending the message to the second computer system when all of said preset data manipulations to the database object are completed (Toub: Column 5, lines 51-56; Column 11, lines 4-30); and

a step where said second computer system accesses said database according to the contents of said log in said message received from said first computer system and the second computer system reflects said database object to said database (Toub: Column 11, lines 4-30).

15. The following claims have the same suggestion or motivation as stated above in the rejection for claim 1.

16. With respect to claim 2, Toub in view of Cohen discloses the data manipulation persisting method in a transaction processing system according to claim 1, wherein said first computer system only stores the database object whose contents are updated by said data manipulations and the database object that is added by said data manipulation in said message to send it to the second computer system (Cohen: Column 2, lines 47-57; Toub: Column 5, lines 51-56).

17. With respect to claim 3, Toub in view of Cohen discloses the data manipulation

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persisting method in a transaction processing system according to claim 1, wherein said first computer system stores contents of a database object after the final data manipulation in said message to send it to said second computer system when a plurality of data manipulations were executed for said database object (Cohen: Column 2, lines 47-57; Toub: Column 5, lines 51-56).

18. With respect to claim 4, Toub in view of Cohen discloses the data manipulation persisting method in a transaction processing system according to claim 3, wherein said first computer system stores contents of only one log, which is needed to reflect said database object stored in said message to said database, in said message when a plurality of data manipulations were executed for said database object (Cohen: Column 2, lines 61-63).

19. With respect to claim 5, Toub in view of Cohen discloses the data manipulation persisting method in a transaction processing system according to claim 4, wherein said first computer system stores one update log and contents after the final update in said message with respect to a predetermined database object when update was repeated to said database object (Cohen: Column 2, lines 47-52).

20. With respect to claim 6, Toub in view of Cohen discloses the data manipulation persisting method in a transaction processing system according to claim 4, wherein said first computer system stores one insertion log and contents after the update in a

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message with respect to a predetermined database object when update was executed after insertion for said database object (Cohen: Column 2, lines 47-52).

21. With respect to claim 7, Toub in view of Cohen discloses the data manipulation persisting method in a transaction processing system according to claim 4, wherein said first computer system stores one deletion log in said message and does not store contents with respect to a predetermined database object when deletion was executed after update for said database object (Cohen: Column 2, lines 35-63; Cohen: Column 3, lines 32-35).

22. With respect to claim 8, Toub in view of Cohen discloses the data manipulation persisting method in a transaction processing system according to claim 4, wherein said first computer system does not store a log and contents with respect to a predetermined database object when deletion was executed after insertion for said database object (Cohen: Column 3, lines 32-35; Column 2, lines 35-46).

23. With respect to claim 9, Toub in view of Cohen discloses a data manipulating program for a remote database comprising:

a first step where a client computer, which communicates with a server computer accessing a database to execute transaction for said database, designates a search condition, requesting said server computer to retrieve records that satisfy said search condition from said database (Toub: Column 5, lines 7-11);

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a second step where said client computer executes preset data manipulations on a memory to a database object, which corresponds to contents of the records retrieved by said server computer, recording the contents of the data manipulations into said memory as a log by a record (Toub: Column 5, lines 30-35; Cohen: Column 5, lines 26-30; Column 6, lines 64-67; Column 7, lines 1-2); and

a third step where said client computer stores the contents of said database object and said log after said data manipulations into a message, sending said message to said server computer, thereby requesting to reflect said database object to said database when all of said preset data manipulations to said database object are completed (Toub: Column 5, lines 51-56; Column 11, lines 4-30).

24. With respect to claim 10, Toub in view of Cohen discloses the data manipulating program for a remote database according to claim 9, wherein modules that make said client computer execute said first and second steps are programmed to vary from one business content to another, and wherein a module that makes said client computer execute said third step is programmed to be common to all business contents (Toub: Column 4, lines 63-67; Column 5, lines 1-56).

Conclusion

25. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

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MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

26. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Carlson reference (US Publication 2005/0278316) teaches about data manipulation between first and second computer connected with a database. The Cameron reference (US Publication 2002/0174136) teaches about transaction log files.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rezwanul Mahmood whose telephone number is (571)272-5625. The examiner can normally be reached on m-f.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones can be reached on (571)272-4085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

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Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Rezwanul Mahmood
Ph # 571-272-5625



SAM RIMELL
PRIMARY EXAMINER